

Statement of Basis for Revision to AOP-7 (Renewal #2) for Mutual Materials Company

Spokane Regional Clean Air Agency (SRCAA) issued AOP-7 (Renewal #2) to Mutual Materials Company (Mutual) on February 13, 2009. Since the permit was issued, some new requirements (i.e., Notice of Construction (NOC) approval order #1492, issued by SRCAA on 9/22/10 and NOC approval order #1495, issued by SRCAA on 9/22/10) have become applicable to the facility. In addition, Washington state greenhouse reporting requirements (Chapter 173-441 WAC) have been promulgated since the permit was issued, which may be applicable to the facility.

According to WAC 173-401-730, when additional requirements become applicable to a source with a remaining permit term of three or more years, the permit must be reopened and revised to include the additional requirements. Since AOP-7 does not expire until February 12, 2014 (which is more than three years after the additional requirements became effective), the AOP must be reopened to incorporate the new requirements. According to WAC 173-401-730, the permit revision must be completed no later than 18 months after promulgation of the applicable requirement.

The procedures for reopening a permit are established in WAC 173-401-730. Generally speaking, the procedure is the same as for issuing a permit (30-day public comment and 45-day EPA review) except that the portions of the permit being revised are the only ones open for comment, and Mutual Materials must be notified at least 30-days prior to the reopening. In this case, Mutual Materials was notified of the intended reopening via a written letter dated March 4, 2011.

As part of this reopening, the following new and/or revised requirements have been incorporated:

- Requirements contained in SRCAA Notice of Construction (NOC) #1492, issued on 9/22/10 for the jaw crusher at the robotic packaging operation;
- Requirements contained in NOC #1495, issued on 9/22/10 for the jaw crusher at the palletized brick selection area; and
- Requirements given in Chapter 173-441 WAC (12/1/10) which are the state greenhouse gas reporting requirements.

This document is intended to provide the statement of basis for the revisions that are being made to AOP-7, Renewal #2 (i.e., the requirements are listed, the regulatory basis for each new and revised requirement is provided, and associated monitoring, recordkeeping, and reporting is discussed). See the "Statement of Basis (Renewal #2)" for the basis of all other requirements for Mutual Materials.

PROPOSED REVISIONS TO AOP-7

The revised AOP-7, Renewal #2 was prepared using the "track changes" feature in Word in order to document the revisions made during the permit reopening. The following list summarizes the major revisions that are included under this permit reopening:

1. The cover page and header of the permit were revised to include a revision date. The expiration date of the permit will remain the same.
2. SRCAA's address was updated in the permit to reflect the new location.
3. The asbestos requirements, given in Condition 43, were updated to include the most recently adopted local and state regulations.
4. On December 1, 2010, the Washington Department of Ecology promulgated a regulation, given in Chapter 173-441 WAC, for state reporting of greenhouse gas (GHG) emissions. Chapter 173-441 WAC establishes GHG reporting requirements that apply to owners and operators of certain facilities that directly emit GHG in Washington. The rule applies to any facility that emits 10,000 metric tons CO₂e or more per calendar year in total GHG emissions in an applicable source category, which includes general stationary fuel combustion sources like those in use at Mutual Materials (kilns, dryers, etc.)

For an existing facility that began operation before January 1, 2012, GHG emissions must be reported to the Washington Department of Ecology for calendar year 2012 and each subsequent calendar year. The report is due by March 31st of each calendar year for GHG emissions in the previous calendar year if a person is also required to report GHG emission to EPA under 40 CFR Part 98. The report is due by October 31st of each calendar year for GHG emissions in the previous calendar year if a person is not required to report GHG emissions to EPA under 40 CFR Part 98.

The state greenhouse gas (GHG) reporting requirements, given in Chapter 173-441 WAC, were added to the revised air operating permit as Condition 46. This condition was added to the "Applicable When Triggered Requirements" section of the permit. The requirements will only apply if Mutual Materials has high enough GHG emissions to require reporting to Ecology, as required in Chapter 173-441 WAC.

In addition to the state GHG reporting requirements, EPA has also promulgated some additional GHG rules, namely the "tailoring rule," which sets thresholds for GHG emissions that define when permits under the PSD program and Title V program are required for new and existing facilities, and the federal GHG reporting rules.

Federal GHG reporting requirements

On October 30, 2009, as amended on July 12, 2010, September 22, 2010, November 30, 2010, December 1, 2010, December 17, 2010, December 27, 2010, and March 18, 2011, EPA promulgated regulations for mandatory federal GHG reporting in 40 CFR Part 98. In general, the regulations require that facilities that emit 25,000 metric tons of CO₂e must report their GHG emissions to EPA. However, as discussed in the preamble to the rule contained in the Federal Register notice, dated October 30, 2009, the federal GHG reporting requirements given in 40 CFR Part 98 are not considered "applicable requirements," as defined in 40 CFR 70.2, under the title V operating permit program. Therefore, the federal GHG reporting requirements in 40 CFR Part 98 do not need to be included in the title V permit.

"Tailoring Rule"

On May 13, 2010, EPA issued a final rule that "tailors" the applicability criteria given in 40 CFR Parts 51, 52, 70, and 71 that determine which stationary sources and modification projects become subject to permitting requirements for GHG emissions under the PSD and

title V programs of the Clean Air Act. The Washington Department of Ecology adopted the tailoring rule changes on the state level by revising Chapter 173-400 WAC (filed on 3/1/11).

Per the final rule, EPA will phase in the Clean Air Act permitting requirements for GHGs in two initial steps:

Step 1 (January 2, 2011 – June 30, 2011)

In the first phase, sources already subject to PSD and Title V for another pollutant will also have to address their GHG emissions. EPA refers to these sources as “anyway” sources, since they will have to go through permitting “anyway” for another pollutant, regardless of their GHG emissions. Specifically, for PSD, a project will only trigger permitting requirements if the project would trigger PSD “anyway” and is also expected to increase GHG emissions by more than the new threshold of 75,000 tpy CO₂e. Such projects will not only trigger permitting requirements, but also the need to install the “best available control technology” (BACT) for GHG emissions. For Title V, sources will only have to address GHG emissions in any new Title V permit applications and in any renewals or revisions to any existing Title V permits that would be required anyway.

Step 2 (July 1, 2011 – June 30, 2013)

The second phase will bring in other large sources of GHG emissions on July 1, 2011. Phase two will cover all sources capable of emitting greater than 100,000 tpy CO₂e, regardless of whether they are an “anyway” source – already subject to PSD and Title V for another pollutant. As a result, any existing or new source with the potential to emit more than 100,000 tpy CO₂e will need a Title V permit. However, for PSD, the 75,000 tpy CO₂e trigger will still apply in determining whether a source must apply GHG BACT to a specific modification project. Sources that obtain a final PSD permit before each phase becomes effective will not have to reopen those permits even if the new rules would render the source or project subject to PSD or Title V for GHG emissions.

EPA also included in the preamble to the rule two commitments for additional “follow-up actions” in the future. The first is to complete another rulemaking by July 1, 2012 to apply PSD and Title V to even more sources beginning in July 2013. The second is to not regulate sources emitting less than 50,000 CO₂e until at least 2016.

In order to meet the requirements of Step 1 of the tailoring rule to “address GHG emissions in any Title V permit revisions,” Mutual Materials submitted the following estimates of their GHG emissions from 2006-2010, based on the total of all natural gas purchased by the facility. This represents the sum of natural gas used by the tunnel kiln, periodic kilns, batch dryers, and general plant heat.

<u>Year</u>	<u>Total CO₂e (Metric Tons)</u>
2006	11,819.2
2007	10,670.7
2008	10,584.3
2009	8,901.5
2010	8,483.3

Mutual Materials also submitted information on their maximum GHG PTE from the facility. Per Mutual, it is difficult to calculate a GHG PTE due to so many variables in their process that can affect GHG emissions (firing temperature, etc.) Mutual estimated that the maximum

GHG PTE from the facility could be ~16,000 metric tons CO₂e based on 84,000 tons of brick and 3,000 tons of flue liners produced (which are the maximums allowed by the permit). However, this only an estimate and likely overestimates potential GHG emissions from the facility.

SRCAA is meeting the requirements of the tailoring rule by incorporating the applicable GHG reporting requirements into this reopened Title V permit. In addition, the revised permit incorporates the newly revised version of Chapter 173-400 WAC, which adopted the tailoring rule new source review thresholds on a state level. The newly revised version of Chapter 173-400 WAC adopted by reference the subparts of 40 CFR 52.21, in effect on October 20, 2010, into WAC 173-400-720, "Prevention of significant deterioration (PSD)," which includes the tailoring rule new source review thresholds. The revised permit requires that Mutual Materials meet the requirements given in the newly revised version of Chapter 173-400 WAC for any new source review project that might occur (Condition 41). This condition will ensure that Mutual Materials must obtain a PSD permit and meet BACT for any future project that causes an increase of GHG emissions above the thresholds established in the tailoring rule.

5. The SRCAA odor requirements given in Condition 52 were updated to include the most recently adopted regulation.
6. All references to Chapter 173-400 WAC were updated to reflect the newly revised rule (filed on 3/1/11).
7. Conditions 73-88 were added to a new Section **II.C Crusher Emission Limitations**. These requirements apply to the two jaw crushers at the facility and are given in NOC #1492 and NOC #1495.
8. Conditions 8M - 10M were added to Section **II.D Monitoring, Recordkeeping, & Reporting Requirements**. These requirements are given in NOC #1492 & #1495 for the two jaw crushers and serve as the monitoring, recordkeeping, and reporting requirements (MRRR) for Conditions 72-82.

The emission limitations pertaining to the two jaw crushers which were added to the AOP and monitoring, recordkeeping, and reporting requirements which assure compliance with the emission limitations are described below.

Condition 73: Prior to any further operation of the crusher at the robotic packaging operation, Mutual Materials must submit a detailed description of the dust suppression system to SRCAA for approval. After the dust suppression system has been approved by SRCAA and is in operation, the crusher may resume operation. [NOC #1492, Condition 1, 9/22/10]

MRRR: No monitoring is required. As with all permit terms, Mutual must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this one-time requirement was met during the reporting period.

Condition 74: No later than 60 days after the crusher at the robotic packaging operation resumes operation, Mutual Materials shall demonstrate compliance with the

opacity requirements of Condition 80 and 81 using EPA Reference Method 9 in accordance with 40 CFR 60.675(c) and the following requirements:

- a. At least 7 days prior to the Method 9 performance test, a test plan must be submitted to SRCAA for approval. Once approved, the test plan shall be followed.
- b. The minimum distance between the observer and the emission source shall be 15 feet.
- c. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun given in EPA Method 9 must be followed.
- d. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- e. The duration of the Method 9 observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Condition 80 and 81 must be based on the average of the five 6-minute averages.

Results from the opacity performance test must be submitted to SRCAA no later than 45 days after the test date. [NOC #1492, Condition 2, 9/22/10]

MRRR: No monitoring is required. As with all permit terms, Mutual must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this one-time requirement was met during the reporting period.

Condition 75: A copy of the Notice of Construction application and the conditions of approval for NOC #1492 and NOC #1495 shall be kept on site and made available to SRCAA personnel upon request. [NOC #1492, Condition 3, 9/22/10] [NOC #1495, Condition 2, 9/22/10]

MRRR: No monitoring is required. As with all permit terms, Mutual must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition 76: Water spray bars with a sufficient number of fog nozzles, or equivalent dust suppression systems, shall be used as required when crushing is occurring to control fugitive dust emissions generated at transfer points, conveyor drop points, and other fugitive dust emission points.

The fog nozzles, or their equivalent, and their orifices shall be cleaned and adjusted periodically to ensure proper dust suppression.

During periods of cold weather when water spray bars cannot be successfully be used, other dust control measures shall be used in lieu of water to control fugitive dust emissions, including bypassing the crusher, using tarps, etc. [NOC #1492, Condition 4, 9/22/10] [NOC #1495, Condition 3, 9/22/10]

MRRR: Mutual is required to perform monthly inspections to check that water is flowing to spray nozzles in the wet suppression systems associated with the crushers. If water is not flowing properly during an inspection, corrective action must be initiated within 24 hours and completed as expediently as practical. Records shall be kept of each inspection of the wet suppression system in a logbook, including the date of each inspection and any corrective actions taken.

In addition, Mutual is required to develop and follow an operation and maintenance (O&M) plan covering all crushing equipment, including dust suppression systems, to ensure that the equipment performs properly. Records are required to be kept of all monitoring and maintenance activities performed on the crushing equipment, including the dates and nature of the monitoring and maintenance activities.

[NOC #1492, Condition 4.a, 9/22/10] [NOC #1492, Condition 5, 9/22/10]
[NOC #1495, Condition 4, 9/22/10]

Condition 77: The crushers, conveyors, and dust suppression systems shall be maintained in good operating condition. [NOC #1492, Condition 5, 9/22/10] [NOC #1495, Condition 4, 9/22/10]

MRRR: Mutual is required to develop and follow an operation and maintenance (O&M) plan covering all crushing equipment, including dust suppression systems, to ensure that the equipment performs properly. Records are required to be kept of all monitoring and maintenance activities performed on the crushing equipment, including the dates and nature of the monitoring and maintenance activities.

In addition, Mutual is required to keep records of the total weight of brick crushed each calendar year. Records shall be kept in accordance in Condition 26 and made available to SRCAA personnel upon request.

[NOC #1492, Condition 5 & 10, 9/22/10] [NOC #1495, Condition 4 & 9, 9/22/10]

Condition 78: Reasonable precautions must be taken to prevent particulate matter (PM) or fugitive dust from becoming airborne from storage piles, processing equipment, transfer points, traveled surfaces, staging areas, parking areas, and other sources of particulate matter (i.e., fugitive dust). [NOC #1492, Condition 6, 9/22/10] [NOC #1495, Condition 5, 9/22/10]

MRRR: Mutual must perform weekly inspections of the facility during daylight hours while the facility is operating to verify that reasonable precautions are being taken to prevent fugitive dust from becoming airborne. Examples of reasonable precautions are given in the permit. Mutual also must record and investigate complaints received regarding fugitive dust.

If potential violations of the requirement are observed during the weekly inspections and/or as part of the complaint investigation, Mutual must take timely and appropriate corrective action.

Mutual must maintain records of each inspection and complaint investigation. Records must include the date and time of the inspection, observations made, the date and time of any complaints received, the date and time of the complaint investigation, the results of complaint investigations, a description of any corrective action taken, and any other information required in permit condition 22-Records of Required Monitoring Information. Records must be kept in accordance with Condition 26-Retention of Records, and, upon request, such records must be made available for inspection by SRCAA staff or other authorized representatives.

[WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition 79: The deposition of particulate matter onto the property of others or beyond the property line is prohibited. [NOC #1492, Condition 7, 9/22/10] [NOC #1495, Condition 6, 9/22/10]

MRRR: The monitoring is the same as for Condition 77. Mutual must perform weekly inspections during daylight hours while the facility is in operation to verify that particulate matter is not being deposited onto the property of others or beyond the property line. Mutual must also record and investigate complaints received regarding fugitive dust.

[WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition 80: Fugitive emissions from the jaw crusher at the robotic packaging operation shall not exceed 12% opacity. The opacity standard shall apply at all times except during periods of startup, malfunction, and as otherwise provided for in 40 CFR 60, Subpart OOO. [40 CFR § 60.672(b), 4/28/09] [40 CFR § 60.11(c), 10/17/2000] [WAC 173-400-115, 3/1/11] [NOC #1492, Condition 8, 9/22/10]

MRRR: Mutual must perform weekly inspections during daylight hours while the facility is operating for the purpose of observing points of potential visible emissions and PM emissions from all emission units that are either significant emission units or insignificant emission units listed in Tables II.A-1 and II.A-2 of the air operating permit (which includes the two jaw crushers).

If visible emissions are observed during an inspection or are otherwise observed by the permittee, the permittee shall verify and certify that:

- 1) the visible emissions or PM emissions are not the result of equipment malfunction, and the equipment, if any, from which the emissions are released, is performing its normal, designed function;
- 2) the air pollution control equipment, if any, is being operated properly in accordance with normal operating procedures; and

- 3) if the visible emissions are the result of fugitive emissions, reasonable precautions are being taken to minimize emissions.

If 1), 2), and/or, 3) are not being met, corrective action must be taken as soon as possible, but no later than three days from discovery, to correct the problem. Taking corrective action does not relieve the permittee from complying with the underlying requirement, nor does it relieve the permittee from the obligation to report any permit deviations as required in Condition 28-Prompt Reporting of Deviations.

If visible emissions are still observed and 1), 2), and 3) are being met, the permittee shall perform or have performed, RM 9 (July 1, 1993) or Ecology Method 9A (July 12, 1990), whichever is applicable, on the source of the visible emissions. The test shall occur within a reasonable timeframe but no later than 24 hours after discovery of the emissions. If the visible emissions exceed the applicable standard, the permittee shall take timely and appropriate corrective action (as soon as possible, but within 24 hours) to address the problem. The results of the RM 9 or Ecology Method 9A test shall be submitted to SRCAA within two working days of the test.

In addition to the weekly inspections, Mutual is required to perform monthly inspections to check that water is flowing to spray nozzles in the wet suppression systems associated with the crushers, as described in the MRRR associated with Condition 75.

Mutual is also required to develop and follow an operation and maintenance (O&M) plan covering all crushing equipment, including dust suppression systems, to ensure that the equipment performs properly. Records are required to be kept of all monitoring and maintenance activities performed on the crushing equipment, including the dates and nature of the monitoring and maintenance activities.

[WAC 173-401-615(1) & (2), 9/16/02] [NOC #1492, Condition 4.a & 5, 9/22/10] [NOC #1495, Condition 4, 9/22/10]

Condition 81: Fugitive emissions from any conveyor transfer point associated with the crusher at the robotic packaging operation shall not exceed 7% opacity. The opacity standard shall apply at all times except during periods of startup, malfunction, and as otherwise provided for in 40 CFR 60, Subpart OOO. [40 CFR § 60.672(b), 4/28/09] [40 CFR § 60.11(c), 10/17/2000] [WAC 173-400-115, 3/1/11] [NOC #1492, Condition 8, 9/22/10]

MRRR: The monitoring is the same as for Condition 80. Mutual is required to perform a weekly inspection to look for the presence of visible emissions, perform a monthly inspection of the spray nozzles, and develop and follow an O&M plan for the crushing equipment.

[WAC 173-401-615(1) & (2), 9/16/02] [NOC #1492, Condition 4.a & 5, 9/22/10] [NOC #1495, Condition 4, 9/22/10]

Condition 82: Fugitive emissions from the jaw crusher at the palletized brick selection area shall not exceed 15% opacity. The opacity standard shall apply at all times except during periods of startup, malfunction, and as otherwise provided for in 40 CFR 60, Subpart OOO. [40 CFR § 60.672(b), 4/28/09] [40 CFR § 60.11(c), 10/17/2000] [WAC 173-400-115, 3/1/11] [NOC #1495, Condition 7, 9/22/10]

MRRR: The monitoring is the same as for Condition 80. Mutual is required to perform a weekly inspection to look for the presence of visible emissions, perform a monthly inspection of the spray nozzles, and develop and follow an O&M plan for the crushing equipment.

It should also be noted that initial Method 9 (visible emissions) performance testing, required per 40 CFR 60, Subpart OOO, was conducted on the palletized brick selection area crusher on 11/1/10. The test report was submitted to SRCAA on 11/8/10 and showed that no visible dust was observed during the test at any crusher or transfer point. Provided that the crusher and water suppression system are properly operated and maintained, the equipment should operate as it did during the initial performance testing with no visible emissions.

[WAC 173-401-615(1) & (2), 9/16/02] [NOC #1492, Condition 4.a & 5, 9/22/10] [NOC #1495, Condition 4, 9/22/10]

Condition 83: Fugitive emissions from any conveyor transfer point associated with the crusher at the palletized brick selection area shall not exceed 10% opacity. The opacity standard shall apply at all times except during periods of startup, malfunction, and as otherwise provided for in 40 CFR 60, Subpart OOO. [40 CFR § 60.672(b), 4/28/09] [40 CFR § 60.11(c), 10/17/2000] [WAC 173-400-115, 3/1/11] [NOC #1495, Condition 7, 9/22/10]

MRRR: The monitoring is the same as for Condition 80. Mutual is required to perform a weekly inspection to look for the presence of visible emissions, perform a monthly inspection of the spray nozzles, and develop and follow an O&M plan for the crushing equipment.

[WAC 173-401-615(1) & (2), 9/16/02] [NOC #1492, Condition 4.a & 5, 9/22/10] [NOC #1495, Condition 4, 9/22/10]

Notice of Construction #1495 approved for the jaw crusher at the palletized brick selection area also contain conditions that are one-time requirements that have been fulfilled. These conditions are listed below and are not included in Mutual's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #1495, Condition 1, 9/22/10	Initial testing requirements to demonstrate compliance with the opacity requirements in 40 CFR 60, Subpart OOO.	Initial testing was conducted on 11/1/10. The test report was submitted to SRCAA on 11/8/10. The report shows that no visible dust was observed during the test at any

		crusher or transfer point. This is a one-time requirement that has been met.
--	--	--

PREPARED BY: _____
April L. Westby

DATE: _____

This Statement of Basis and the Operating Permit to which it applies have been reviewed by:

_____, P.E.
Joe Southwell, P.E.

DATE: _____

Ronald J. Edgar, Chief of Technical Services

DATE: _____

William Dameworth, Control Officer

DATE: _____